service and commercial rivalries [illegible] up to concentrate and [illegible] the United States [illegible] which could have led the Soviet Union in missile development and launching the first earth-circling satellite.

The Soviet Union launched its ICBM program immediately after the war and has continued full steam ahead. In the United States scientific and military skepticism caused us to drag our feet.

Convair, which had the first contract for Atlas, used its own money in the late 1940s to keep the program going. The program was revived after the Korean war shook the United States out of its complacency.

$8,679,000,000 for Missiles.

The record of appropriations for missile procurement since 1950 is a record of the domestic tribulations of advancing into the missile field. They are as follows in millions of dollars: 1951, 424; 1952, 468; 1953, 636; 1954, 748; 1955, 345; 1956, 936; 1957, 2300; 1958, 2562.

This is the respectable total of $8,679,000,000 and to this should be added about two billion dollars of research and development funds devoted to missiles.

With such an amount of money available almost anything might have been accomplished, it would seem; but the Eisenhower Administration started to cut the rising Truman budget on missiles. The 1953 appropriation, the largest until 1956, represented a reduction of the amount proposed by President Truman.

By 1955 it was down below the money made available in 1951. But by late 1955, the evidence of Soviet success in missiles could not be overlooked and the amount made available was almost three times as great as the previous years.

Then it zoomed to more than two billion for 1957 and 1958. Trevor Gardner, an able scientist as well as a business man, gave up the struggle with the Secretary of Defense over needs and a suitable organization for missile development and resigned early in 1955.

Acceleration and Delays.

The Secretary of Defense Dec. 6, 1955, announced that the intermediate- and long-range program had been on an accelerated basis for some time. He then put the Deputy Secretary of Defense in charge of it. This failed to help.

Then early in March, 1956, the Secretary of Defense named Edgar V. Murphree president of the Esso Research & Engineering Corp., both an able scientist and business man, as his special assistant, or czar, for guided missiles. Murphree resigned over fund and organizational disagreements with the secretary.

Murphree was succeeded last May by William M. Holaday, for three years director of research for the Mobil Oil Co. He had previously been Deputy Assistant Secretary of Defense for Research and Engineering. He considered the [illegible] important assignment.

Probably the United States missile program has been hampered more than anything else by the diffusion of innumerable missile projects of all types, surface-to-surface, surface-to-air, air-to-ground, air-to-air and long-range ballistic missiles in dozens of compartmented projects divided between the three services.

Gardner's Criticism.

Gardner, when he resigned, spoke of "the Army and Air Force each working on its own parochial guided missiles program, each vying with each other in intolerable rivalry."

The over-all program, he said, is smothering in an administrative nightmare of committees and subcommittees competing with each one another for influence and appropriations.

He declared that "the ICBM project, which two and one-half years ago was given top-priority status, now shares top priority with many subsidiary projects and the result is that there is no such thing as 'top priority.'"

He complained that the executive personnel was notable for its preponderance of management experts recruited from private business, and for its poverty of full-time scientists who qualify as missile experts and know what they're talking about.

He told the Post-Dispatch that his worst problem, however, was to try to get the true story to Secretary of Defense Charles E. Wilson and his deputy, Roger Kyes. They thought the program was managed by hacks, he said, and loaded with overlapping and boondoggling. He found the bookkeepers in control and he failed to get across his story to the Secretary.

The situation has not changed much since then. Money is being wasted on duplicating projects in the services.

Even more important is the waste of scientific talent. There are not enough qualified scientists to go around. They are spread in tight little secrecy-surrounded compartments in the armed services and industry. Although theoretically each service keeps the other informed of its progress and ideas, the fact of service rivalry prevents the dissemination of ideas. Any accomplishments in equipment is made freely available, but ideas are kept from dissemination in the anxiety of each service to be first in a new development.

Holaday has found the same conditions. One of his early tasks was to chairman a committee composed of Maj. Gen. John B. Medaris, chief of the Army ballistic missile agency, and Maj. Gen. Bernard A. Schriever, holding a similar position in the Air Force. They were to choose between the Army's Jupiter intermediate missile and the Air Force's Thor.

Having studied the matter for weeks the committee of three came up with four recommendations. They were adopted, that the Thor be adopted, that the two be combined [illegible]

No Funds to Fire Jupiter.

The top-level decision was to continue tests until a basis of choice could be established. However, if the Jupiter program continues to be treated as Wilson treated it, there will be no funds to fire Jupiter. The Army had to fight tooth and toenail to get enough funds for its recent successful test firings.

Many officials in the Pentagon see as the only solution to get ahead with the job and to make effective use of scientific personnel and funds, the establishment of a Manhattan-type project that would take over all the research, development and testing of all types of missiles.

They have no fears about industry's ability to manufacture the missiles once the design has been fixed, nor would the new missile agency worry about who would operate the missiles.

Its function would be to research, design, develop and test. It would eliminate the service rivalries that block the interchange of scientific ideas and information. Many officials believe that unless something of this nature is done, we not only shall not be overtaking the Soviet Union, but will fall further behind.